# DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION

A1NM Revision 28 BOEING 767-200 Series 767-300 Series 767-300F Series 767-400ER Series May 1, 2009

#### TYPE CERTIFICATE DATA SHEET A1NM

This data sheet, which is part of Type Certificate No. A1NM, prescribes conditions and limitations under which the product for which the type certificate was issued meets the airworthiness requirements of the Federal Aviation Regulations.

Type Certificate Holder: The Boeing Company

PO Box 3707 Seattle, WA 98124

# I - Model 767-200 (Approved July 30, 1982)

Engines: 2 Pratt and Whitney JT9D-7R4D, JT9D-7R4E, JT9D-7R4E4, PW4052, PW4056, PW4060A, or 2

General Electric CF6-80A, CF6-80A2, CF6-80C2-B2, -B4, -B6 or CF6-80C2B4F, -B6F, -B7F.

**WARNING**: To prevent unsafe airplane handling characteristics, PW4000 series engines with electronic engine control (EEC) part number 791100-14-102 (Pratt & Whitney part number 54D043) must not be installed on the same airplane as PW4000 series engines that have the ring case compressor configuration. This combination of engine configurations is not approved because of a significant difference in engine acceleration rates and the effect of that difference on airplane handling characteristics. Ring case compressor equipped engines were approved with the same engine model number as previously approved PW4000 configurations, and must be identified by the presence of a "/A5" marked at the end of the "INSTL ARR" block on the engine data plate.

The General Electric CF6-80A engines may be intermixed with CF6-8 0A2 engines with appropriate limitations as noted in the FAA-Approved Airplane Flight Manual.

Fuel: Pratt and Whitney Engines: Fuels conforming to the latest version of Pratt & Whitney Service

Bulletin 2016

General Electric Engines: Fuel conforming to GE Specification D50TF2. (See Note 14) All Engines: ASTM D-1655 grades JET A, JET A1, OR JET B. (See Note 14)

MIL-T-5624 grades JP-4 or JP-5. (See Note 14)

MIL-T-83133 grades JP-8.

Engine Ratings & For engine ratings and operating limits see engine TC Data Sheet No. E3NE for the P&W JT9D-Operating Limits: 7R4D, - 7R4E, or -7R4E4; TC Data Sheet E13NE for the GE CF6-80A, CF6-80A2, or CF6-

7R4D, -7R4E, or -7R4E4; TC Data Sheet E13NE for the GE CF6-80A, CF6-80A2, or CF6-80C2; TC Data Sheet E24NE for the PW4000, or the FAA-Approved Airplane Flight Manual.

Airspeed Limits: VD = 420 KCAS to 17,854 ft/.91M above 23,000 ft, linear variation between these points.

VFC = 390 KCAS to 17,600 ft/382 KCAS at 23,000 ft/.87M above 26,000 ft, linear variation

between these points. VMO = 360 KCAS/.86M VLE = 270 KCAS/.82M VLO = 270 KCAS/.82M

Page No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Rev. No.	28	27	28	28	27	27	27	27	25	18	20	28	27	27

# I. Model 767-200 (cont'd):

For other airspeed limits, see the appropriate FAA-Approved Airplane Flight Manual.

CG Range: See the appropriate FAA-Approved Flight Manual.

Maximum Weights: See the appropriate FAA-Approved Flight Manual.

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Model
                          Eligibile Serial Numbers
767-201
                          23897-23902
767-204
                          22980, 22981, 23072, 23250, 23807, 24013, 24239, 24457, 24736, 24757, 25058, 25139
767-205
                          23057, 23058
767-209
                          22681, 22682
767-212
                          28525
767-216
                          23623, 23624, 24973
767-219
                          23326-23328, 24150
767-222
                          21862-21880
767-223
                          22307-22336, 30256
767-224
                          30430-30439
767-231
                          22564-22573
767-232
                          22213-22227
767-233
                          22517-22528, 24142-24145, 24323-24325
767-236
                          30312
767-238
                          23304-23306, 23309, 23402, 23403, 23896
767-241
                          23801-23806
767-246
                          23212-23214
767-258
                          22972-22975
767-259
                          24618, 24835
767-260
                          23106, 23107, 23916
767-266
                          23178-23180
767-269
                          23280-23282
767-275
                          22683, 22684
767-277
                          22692-22696
767-281
                          22785-22790, 23016-23022, 23140-23147, 23431-23434
767-283
                          24727, 24728
767-284
                          24716, 24742, 24762
767-23B
                          23973, 23974
                          28270
767-24Q
                          24733, 24734
767-25D
767-25E
                          27192-27195
767-27C
                          27385, 27391, 28016, 28017
767-27E
                          24832, 24854
767-27G
                          25537, 27048, 27049
767-2B1
                          25421, 26471
767-2B7
                          24764, 24765, 24894, 25225, 25257, 26847
767-2AX
                          33685
767-2DX
                          32954
767-2EY
                          33686-33689
767-2FK
                          33844, 33958, 34433, 35498
767-2J6
                          23307, 23308, 23744, 23745, 24007, 24157
767-2N0
                          24713, 24867
767-2Q4
                          22921-22923
767-2Q8
                          24448
767-2S1
                          23494
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### II - Model 767-300 (Approved September 22, 1986)

Engines: 2 Pratt and Whitney JT9D-7R4D, JT9D-7R4E, JT9D-7R4E4, PW4056, PW4060, PW4060C, or PW4062;

or 2 General Electric CF6-80A2, or CF6-80C2-B2, -B4, or -B6, or CF6-80C2-B2F, B4F, B6F, or

-B7F; or 2 Rolls Royce RB211-524H-36, or RB211-524H-T-36.

**WARNING**: To prevent unsafe airplane handling characteristics, PW4000 series engines with electronic engine control (EEC) part number 791100-14-102 (Pratt & Whitney part number 54D043) must not be installed on the same airplane as PW4000 series engines that have the ring case compressor configuration. This combination of engine configurations is not approved because of a significant difference in engine acceleration rates and the effect of that difference on airplane handling characteristics. Ring case compressor equipped engines were approved with the same engine model number as previously approved PW4000 configurations, and must be identified by the presence of a "/A5" marked at the end of the

"INSTL ARR" block on the engine data plate.

Fuel: Pratt and Whitney Engines: Fuels conforming to the latest version of P&W Service Bulletin 2016

General Electric Engines: Fuel conforming to GE Specification D50TF2. (See Note 14)

Rolls Royce Engines: See Rolls Royce "Operating Instructions RB211-524H on the Boeing 767-300. (See

Note 15)

All Engines: ASTM D-1655 grades JET A, JET A1, OR JET B. (See Note 14, 15)

MIL-T-5624 grades JP-4 or JP-5. (See Note 14, 15)

MIL-T-83133 grades JP-8.

Engine Ratings & Operating Limits:

For engine ratings and operating limits see engine TC Data Sheet No. E3NE for the P&W JT9D-7R4D, -7R4E, or -7R4E4; TC Data Sheet E13NE for the GE CF6-80A2, or CF6-80C2; TC Data Sheet E24NE for the PW4000, TC Data Sheet E30NE for the Rolls Royce RB211-524H-36, or RB211-

524H-T-36; or the FAA-Approved Airplane Flight Manual.

Airspeed Limits: VD = 420 KCAS to 17,854 ft/.91M above 23,000 ft, linear variation between these points.

VFC = 390 KCAS to 17,600 ft/382 KCAS at 23,000 ft/.87M above 26,0 ft, linear variation

between these points. VMO = 360 KCAS/.86M VLE = 270 KCAS/.82M VLO = 270 KCAS/.82M

For other airspeed limits, see the appropriate FAA-Approved Airplane Flight Manual.

CG Range: See the appropriate FAA-Approved Flight Manual.

Maximum Weights: See the appropriate FAA-Approved Flight Manual.

<u>Model</u>	Eligible Serial Numbers
767-304	28039-28042, 28208, 28883, 28979, 29137, 29138, 29384
767-306	26263, 27610-27612, 27614, 27957-27960, 28098, 28884, 30393
767-316	26327, 26329, 27597, 27613, 27615, 29227-29229, 34626, 34628, 34629, 35229-35231, 35696-35698,
	36710-36712
767-319	24875, 24876, 26264, 26912, 26913, 26915, 26971, 28745, 29388, 30586
767-322	25091-25094, 25280, 25283-25287, 25389-25394, 27112-27115, 27158-27160, 29236-29243, 30024-
	30029
767-323	24032-24046, 25193-25202, 25445-25451, 26995, 26996, 27059, 27060, 27184, 27448-27451
	29429-29432, 29603-29606, 33081-33089
767-324	27392-27394, 27568, 27569
767-328	27135, 27136, 27212, 27427, 27428
767-330	25137, 25208, 25209, 26983-26988, 26991, 26992
767-332	23275-23279, 23435-23438, 24075-24080, 24759, 24775, 24800, 24802, 24803, 24852, 24981,
	24982, 25061, 25122, 25123, 25143-25146, 25306, 25409, 25984-25991, 27110, 27111,
	27582-27584, 27961, 27962, 28447-28458, 29689-29698, 30180, 30198, 30199,
	30388, 30573-30575, 30594 30597, 32776
767-333	25583-25588, 30846, 30850-30852
767-336	24333-24343, 25203, 25204, 25442-25444, 25732, 25733, 25826, 25828, 25829, 25831, 25832,
	25834, 27140, 29230-29232
767-338	24146, 24316, 24317, 24407, 24531, 24853, 24929, 24930, 25246, 25274, 25316, 25363,

25575-25577, 28153, 28154, 28724, 28725, 29117, 29118, 30186

767-341	24752, 24753, 24843, 24844, 30341, 30342
767-343	30008, 30009
767-346	23215-23217, 23645, 23961-23966, 24498, 24782, 24783, 27311-27313, 27658, 27659, 28553, 28837,
	28838, 29863, 32886-32888, 33493-33497, 33845-33851, 35813-35815, 37547, 37548, 37550
767-352	26261, 26262
767-360	33767-33769
767-366	24541, 24542
767-375	24082-24087, 24306, 24307, 24574, 24575, 25120, 25121, 25864, 25865, 30108, 30112
767-381	23756-23759, 24002-24006, 24350, 24351, 24400, 24415-24417, 24632, 24755, 24756, 24880, 25055,
	25136, 25293, 25616-25619, 25654-25662, 27050, 27339, 27444, 27445, 27942, 27943, 27944, 32972-
	32980, 33506-33508, 35876, 35877, 37720
767-383	24318, 24357, 24358, 24475-24477, 24729, 24846-24849, 25088, 25365, 26544
767-31A	24428, 24429, 25273, 25312, 26469, 26470, 27619
767-31B	25170, 26259, 26265
767-31K	27205, 27206, 28865
767-32K	33968
767-33A	25346, 25403, 25530-25536, 27189, 27310, 27376, 27377, 27468, 27476, 27477, 27908, 27909, 27918,
	28043, 28138-28141, 28147, 28159, 28495, 33421-33425
767-33P	28370, 28392, 33078, 35796
767-34P	33047-33049
767-35D	24865, 27902, 28656
767-35E	26063, 26064
767-35H	26387-26389
767-36D	27309, 27684, 27685, 27941, 35155, 35156
767-36N	29898, 30107, 30109-30111, 30115, 30841, 30843, 30847, 30853, 30854
767-37D	26328
767-37E	25077
767-38A	29617, 29618
767-38E	24797, 24798, 25132, 25347, 25404, 25757-25760, 25762, 25763, 29129, 30840
767-39H	26256, 26257
767-3BG	30564-30566
767-3D6	24766-24768
767-3G5	24257-24259, 28111, 29435
767-3J6	25875-25878
767-3P6	23764, 24349, 24484, 24485, 24495, 24496, 24983-24985, 25241, 25269, 25354, 26233-26238,
	27254, 27255
767-3Q8	24745, 24746, 27600, 27616-27618, 27686, 27993, 28132, 28206, 28207, 29390, 29383, 29386, 29387,
	30048, 30301
767-3S1	25221, 26608
767-3T7	25076, 25117
767-3W0	28148, 28149, 28264
767-3X2	26260
767-3Y0	24947, 24948, 24952, 24953, 24999, 25000, 25411, 26200, 26204-26208
767-3Z9	23765, 24628, 26417, 27095, 29867, 30331, 30383
767-3BG	30563
767-3CB	33466-33469

# III - Model 767-300F (Freighter) (Approved October 12, 1995)

Engines: 2 General Electric CF6-80C2B6F or B7F

Fuel: General Electric Engines: Fuel conforming to GE Specification D50TF2

All Engines: ASTM D-1655 grades JET A, JET A1, or JET B

MIL-T-5624 grades JP-4 or JP-5 MIL-T-83133 grades JP-8

Engine Ratings &

Operating Limits: For engine ratings and operating limits see engine TC Data Sheet E13NE for the GE CF6-80C2.

# III - Model 767-300F (Freighter) cont'd:

Airspeed Limits: VD = 420 KCAS to 17,854 ft/.91M above 23,000 ft, linear variation between these points

VFC = 390 KCAS to 17,600 ft/.382 KCAS at 23,000 ft/.87M above 26,0 ft, linear variation

between these points VMO = 360 KCAS/.86M VLE = 270 KCAS/.82M VLO = 270 KCAS/.82M

For other airspeed limits, see the appropriate FAA-Approved Airplane Flight Manual.

CG Range: See the appropriate FAA-Approved Airplane Flight Manual.

Maximum Weights: See the appropriate FAA-Approved Airplane Flight Manual.

Model Eligible Serial Numbers

767-34AF 27239-27243, 27740-27764, 32843, 32844

767-38EF 25756, 25761, 29129

767-316F 29881, 30780, 30842, 32572, 32573, 34245, 34246, 34627

767-346F 35816, 35817, 35818 767-381F 33404, 33509, 33510, 35709

### IV- Model 767-400ER (Approved July 20, 2000)

Engines: 2 General Electric CF6-80C2B8F

Fuel: General Electric Engines: Fuel conforming to GE Specification D50TF2

ASTM-D-1655 grades JET A, JET A1, or JET B

MIL-T-5624 grades JP-4 or JP-5 MIL-T-83133 grades JP-8

Engine Ratings &

Operating Limits: For engine ratings and operating limits see engine TC Data Sheet E13NE for the GE CF6-80C2.

Airspeed Limits: VD = 420 KCAS to 17,854 ft/. 91M above 23,000 ft., linear variation between these points

VFC = 390 KCAS to 17,600 ft/. 382 KCAS at 23,000 ft/. 87M above 26,0 ft, linear variation

between these points VMO = 360 KCAS/. 86M VLE = 270 KCAS/. 82M VLO = 270 KCAS/. 82M

For other airspeed limits, see the appropriate FAA-Approved Airplane Flight Manual.

CG Range: See the appropriate FAA-Approved Airplane Flight Manual.

Maximum Weights: See the appropriate FAA-Approved Airplane Flight Manual.

<u>Model</u> <u>Eligible Serial Numbers</u>

767-424ER 29446-29461 767-432ER 29699-29719 767-4FSER 34205

Minimum Crew: Two (2); pilot and copilot

Maximum Passengers: 255 (767-200) with 2 pairs of Type A plus 1 pair of Type III exits.

290 (767-200/300) with 2 pairs of Type A plus 2 pairs of Type III exits. 290 (767-300) with 3 pairs of Type A plus 1 pair of Type III exits.

(See Note 6 for Type III Exit requirements.)

351 (767-300) with 3 pairs of Type A plus 1 pair of Type I exits.

0 passengers (767-300F) 2 crew, 4 persons with one floor level exit equipped with inertia reels and right

hand flight crew exit operable from outside. (Exemption No. 5993A)

375 for 767-400ER

#### V. 767-300BCF Major Design Change

A 767-300BCF (Boeing Converted Freighter) is a 767-300 series passenger airplane that has been modified in accordance with FAA-approved Boeing Service Bulletin(s) 767-00-0039 to operate in a freighter configuration. These aircraft remain 767-300 series aircraft for documentation purposes on this TCDS and with regard to the applicability of airworthiness directives. Because of the magnitude of this design change, the certification basis for the changed aspects was required to be established and documented in accordance with section 21.101 (Changed Product Rule).

All general information in TCDS A1NM for the 767-300 Series remains applicable to an airplane operating in the 767-300BCF configuration, with the following exceptions:

Maximum Passengers: There are no provisions for the carriage of passengers.

The 767-300BCF certification basis was established according to the requirements given in § 21.101 and AC 21.101-1, and was determined in accordance with FAA Order 8110.48. The 767-300BCF consists of the following product level change which is considered significant per AC 21.101-1:

Significant Product Level Change - Passenger to Freighter Conversion:

Certification basis: Part 36: Unchanged under the "No Acoustical Change" Provisions of § 21.93(b)

SFAR 27: Unchanged from 767-300 Series Part 26, Amendments 26-0 through 26-1

Part 25 of the FAR, effective February 1, 1965, as amended by Amendments 25-1 through 25-117 with the

following exceptions per section 21.101(b):

SECTION NO.	TITLE	THRU AMDT. 25-
25.365(e)(2)	Pressurized Compartment Loads	25-54 (for compartments outside of the pressurized area)
25.561(c)(2)	Emergency landing conditions – General	25-64
25.571 Damage-	tolerance and Fatigue Evaluation of Structure.	25-54
25.831(a), (b)(2), (g)	Ventilation	25-41
25.841(a)	Pressurized Cabins	25-38

#### Changed Areas:

The following is a high level description of the listing of changes incorporated as part of the passenger to SF conversion:

- Installed strengthened floor beams and fuselage frames
- Installed main deck cargo door
- Revised cargo ventilation system
- Removal of passenger windows and installation of window plugs
- Installed main deck cargo fire protection system and smoke detection system
- Installed aural and visual alerts in the Class E cargo compartment
- Installation of seats and provisions to the flightdeck for three supernumeraries

# V. 767-300BCF Major Design Change (cont'd)

The certification basis for the following changes incorporated as part of the passenger to SF conversion remains at the original certification basis for the Model 767-300 shown on TCDS A1NM:

- Rerouting and some minor changes to hardware associated with flight controls, landing gear, and wheel brake cables
- Rerouting of air data tubing, hydraulic tubing, certain electrical wiring
- Changes to performance characteristics associated with static and dynamic loads
- Forward lavatory with recirculating waste system, including flush motor and related timer and circuit breaker
- Re-use of passenger airplane interior mounting hardware and attach points to accommodate cargo compartment equipment like sidewall panels and ceilings.
- Installation of a floor-mounted first observer seat
- Revision to the Ditchng and Flotation analysis document as affected by the SF modification
- Revision of the EICAS to the 767-300F configuration
- Incorporation of the 767-300 production stabilizer electric alternate trim control system
- Optional installation of English and foreign language placards in appropriate exterior and interior locations
- Optional modification of lower lobe air conditioning
- Strengthening of landing gear to accommodate differences in weight and CG
- Revision of Door 1L counterbalance associated with slide removal

The certification basis for areas not affected by the change will remain at the original certification basis for the Model 767-300 shown on TCDS A1NM.

**Special Conditions:** 

Special conditions that are part of the certification basis for the 767-300 Series apply to the airplane operating in the 767-300BCF configuration.

Exemptions:

All exemptions from 14 CFR Part 25 listed in TCDS A1NM for the 767-300 Series apply to the 767-300BCF configuration, except those listed below:

Exemption No. 4725 - Exemption from 25.785(h) -Allows one seat for a required flight attendant to be located near the overwing Type III exits. Does not apply.

In addition, the following exemption also applies:

Exemption 9696, dated May 14, 2008 provides relief from the requirements of Sections 25.785(j); 25.807(d), (g)(1), (i)(1); 25.810(a)(1); 25.812(e); 25.813(b); 25.857(e); and 25.1447(c)(1) to allow for the carriage of supernumeries on the 767-300BCF.

Equivalent Safety Findings: All existing Equivalent Safety Findings listed in TCDS A1NM for the 767-300 Series apply to the 767-300 operated in the 767-300BCF configuration, except those listed below:

- Test Subjects for Emergency Evacuation Demonstration, Section 25.803(c)(8). Does not apply
- Passenger Emergency Exits, Section 25.807(a)(7)(iv) and (c). Does not apply
- Type III Exit Access, 25.803, 25,807(c) and 25.813(c). Does not apply
- Emergency Exit Access, 25.807, 25.809 and 25.813. Does not apply
- Exterior Exit Markings, 25.811(f)(2). Does not apply
- "No Smoking" limitation in passenger compartment, 25.791 and 25.853(c). Does not apply
- Type A Exit Passageway Dimensions, 25.807 and 25.811. Does not apply
- Cross-Aisle Between Type III Exits, 25.807 and 25.813. Does not apply

TCDS Notes:

All Notes in TCDS A1NM that apply to the 767-300 Series also apply to an airplane operated in the 767-300BCF configuration.

Optional Requirements:

All optional requirements in TCDS A1NM that apply to the 767-300 Series also apply to an airplane operated in the 767-300BCF configuration.

# **DATA PERTINENT TO ALL MODELS**

Maximum Baggage/Cargo: See appropriate Weight and Balance Manual.

Fuel and Oil Capacities: See appropriate Weight and Balance Manual.

Minimum Required Fuel:

See appropriate FAA-Approved Flight Manual.

Maximum Operating

Altitude: 43,100 feet

Leveling Means: Two inclinometers, plumb bob support and target (scale), left main gear well.

Datum: Sta 0.0, located 92.5 in forward of airplane nose (B.S. 92.5).

MAC: 237.5 inches

Control Surface Movements:

Control surfaces must be rigged in accordance with Boeing Drawings 251T1001, 251T2001,

251T3001, 251T4001, 254T7001, 257T4001, 256T1001, 256T2001, 256T3001.

Certification

Basis:

767-200/-300

Part 25 of the Federal Aviation Regulations as amended by Amendments 25-1 through 25-37, except where

superseded by the following sections of Part 25 as amended by Amendments 25-1 through:

25-38 (Sections 25.101, 25.161, 25.397, 25.603, 25.675, 25.685, 25.775, 25.787, 25.815, 25.841, 25.941, 25.951, 25.979(a), (b), (c), 25.999, 25.1027, 25.1041, 25.1093(b), 25.1125, 25.1143(a), (b), (c), (d), 25.1167, 25.1303, 25.1305, 25.1322, 25.1355, 25.1385, 25.1403, 25.1439, 25.1515, 25.1533, 25.1557).

25-39 (Section 25.807).

25-40 (Sections 25.901(a), (b)(1)(ii), (b)(2), (b)(3), (b)(4), (c), 25.903, 25.933, 25.939, 25.943, 25.945, 25.952, 25.959, 25.963, 25.965, 25.973, 25.995, 25.1091(a), (b), (c), (d), 25.1093(a), (c), 25.1121, 25.1123,

25.1141, 25.1145, 25.1197, 25.1199, 25.1207, 25.1337, 25.1549).

25-41 (Sections 25.831, 25.1309, 25.1321, 25.1325, 25.1331, 25.1333, 25.1335, 25.1351, 25.1401,

25.1421, 25.1435, 25.1447, 25.1450, 25.1457, 25.1459, 25.1461).

25-42 (Sections 25.21, 25.29, 25.107, 25.111, 25.143, 25.147, 25.149, 25.177, 25.181, 25.201, 25.207, 25.233, 25.237, 25.255, 25.703, 25.729, 25.1043, 25.1353, 25.1501, 25.1521, 25.1581, 25.1583, 25.1585,

25.1587).

25-43 (Section 25.1326). 25-44 (Section 25.1413).

25-45 (Sections 25.571, and 25.573).

25-46 (Sections 25.345, 25.351(a), 25.629, 25.697, 25.803, 25.901(d), 25.1103(a), (b)(2), (d), (e), (f),

25.1142, and 25.1522). 25-49 (Section 25.733).

25-54 (Section 25.365 (e)(1), (2)).

Part 36 of the Federal Aviation Regulations:

Amendment 36-1 through 36-12.

Special Federal Aviation Regulation 27.

Exemption from Part 25:

Exemption No. 4725 - Exemption from 25.785(h) -Allows one seat for a required flight attendant to be

located near the overwing Type III exits.

# DATA PERTINENT TO ALL MODELS (cont'd)

Equivalent Safety Findings (ESF's) exist with respect to the following sections of Part 25:

25.1093(b)(1) - Induction System Deicing and Anti-icing Protection

25.1103(d) - Induction System Ducts and Air Duct Systems

25.1103(e) - Induction System Ducts and Air Duct Systems RB211-524H Installation only.

25.1181(a)(6) - Designated Fire Zones; Regions Included

25.1203 - Fire Detector System for Compartment Surrounding the Turbine and Jetpipe 4A/4B) RB211-524H Installation only.

(Zone

25.1305(a)(4), (a)(6), (c)(1) and (c)(3) - Powerplant Instruments

25.1387(b) and (c) - Position Light System Dihedral Angles

25.1393 - Minimum Intensities in Any Vertical Plane of Forward and Rear Position

25.1395 - Maximum Intensities in Overlapping Beams of Forward and Rear Position Lights

25.1415(d) - Emergency Locator Transmitter (ELT)

25.1549(b) - Powerplant and Auxiliary Power Unit Instruments

25.365(e)(2) - Pressurized Cabin Loads

25.803(c)(8) - Test Subjects for Emergency Evacuation Demonstration

25.807(a)(7)(iv)

and (c) - Passenger Emergency Exits

25.803, 807(c)

and 813(c) - Type III Exit Access

25.807, 809

and 813 - Emergency Exit Arrangement

25.807(a)(3)

and 813(c) - Emergency Exit Access 25.811(f)(2) - Exterior Exit Markings

25.791

and 853(c) - "No Smoking" limitation in passenger compartment

25.811(f) - Door Sill Reflectance

Equivalent Safety Findings which apply only to the Model 767-200 series exist with respect to the following regulations:

FAR 25.807

and 811 - Type A Exit Passageway Dimensions

FAR 25.807

and 813 - Cross-Aisle Between Type III Exits

Equivalent Safety Findings which apply only to the Model 767-300 series exist with respect to the following regulations:

FAR 25.107(d), (e)(1)(iv), (e)(4) - Minimum unstick speed

FAR 25.853(d), Amendment 23-32 Folding Waste Trolley

FAR 25 (Several) Use of 1-g stall speed (non-structural Sections) 767-300 and some increased gross weight 767-200 airplanes

FAR 25 807, 809,

and 813 - Emergency Exit Arrangement and Cross-Aisle Proximity

Special Conditions with respect to the following subjects apply to the Model 767-200 and 767-300:

Special Condition No. 25-ANM-18 on Lightning Protection, Protection from Unwanted Effects of Radio Frequency (RF) Energy and Propulsion Control System for Pratt and Whitney PW4000 series engines, General Electric CF6-80C2 FADEC engine, and Rolls Royce RB211-524H-36 engine installations.

Special Condition No. 25-ANM-20 for installation of a longitudinal partition.

Compliance with the following optional requirements has been established:

Ditching Provisions 25.801 (Over- water operation can be approved when the aircraft has been equipped and installation has been approved

according to FAR 25.801)

Ice Protection Provisions 25.1419

# DATA PERTINENT TO ALL MODELS (cont'd)

# 767-300F (Freighter)

The 767-300F Type Certification Basis includes the following requirements in addition to the 767-300 certification basis detailed above:

25.561 Amendment 25-64 Applies to seats for supernumeraries,

galley and rigid barrier.

25.783 Amendment 25-72 Applies to main deck cargo door.

#### Exemption from FAR 25:

Exemption No. 5993 - Exemption from 25.807(c)(1) and 25.857(e) - Allows for the carriage of up to seven persons including the flight crew members, when the airplane is equipped with a floor level exit with escape slide, and a right hand flight crew window emergency exit that is operable from the outside.

Exemption No. 5993A - Exemption from 25.809(f)(1) - Allows for the carriage of persons other than flight crew members. In lieu of an escape slide, the emergency evacuation assist means at the entry door shall be an inertial reel descent device and harness provided for each occupant. See Note 12.

Equivalent Safety Findings exist with respect to the following regulations: FAR 25.1447(c)(1) and 25.1447(c)(3) - Equipment Standards for Oxygen Dispensing Units

#### 767-400ER

Title 14 Code of Federal Regulations (CFR) Part 25 as amended by Amendments 25-1 through 25-89 for the complete airplane with the exceptions listed below:

# Exceptions/Reversions:

SECTION NO.	TITLE	AT AMENDMENT
25.101	Performance - General	25-92
25.105	Takeoff	25-92
25.107	Takeoff Speeds	25-92
25.109	Accelerate-Stop Distance	25-92
25.113	Takeoff Distance and Takeoff run	25-92
25.115	Takeoff Flight Path	25-92
25.341	Gust Loads	25-86 <sup>1</sup>
25.365(d)	Pressurized Compartment Loads	25-71
25.365(e)(2)	Pressurized Compartment Loads	25-54 <sup>6</sup>
25.499(e)	Nose Wheel Yaw	25-91
25.519(b)(2)	Jacking and Tie-down Provisions	not part of the TC
		basis
25.562	Emergency Landing Dynamic Conditions	$25-64^3$
25.571	Damage - Tolerance and Fatigue Evaluation of Structure	25-45
25.703	Takeoff Warning System	25-42 <sup>4</sup>
25.735	Brakes	25-92
25.783(e), (g)	Doors	$25-23^5$
25.783(f)	Doors	not part of the TC
		basis
25.831(a)	Ventilation	25-41
25.831 (b)(2)	Ventilation	25-41
25.831(g)	Ventilation	not part of the TC
		basis
25.841	Pressurization	25-38
25.853(d)(3)	Compartment Interiors	25-72
25.855	Cargo or Baggage Compartments	$25-72^2$ , $25-32$
25.858(a)	Cargo Compartment Fire Detection Systems	not part of the TC
• • • • • • • • • • • • • • • • • • •		basis
25.903(d)	Engines	25-40
25.903(e)	Engines	25-73 <sup>4</sup>
25.1316	System Lightning Protection	25-80 <sup>7</sup>
25.1419(c)	Ice Protection	25-23

### DATA PERTINENT TO ALL MODELS (cont'd)

25.1517 (2) Rough Air Speed for Turbulence Penetration Speed not part of the TC basis 25.1533 Additional Operating Limitations 25-92

<sup>1</sup>. For damage tolerance analysis, to be compatible with the requested reversion to Amendment 25-45 for §25.571, Boeing proposes to comply with Amendment 25-0. For static strength (failsafe) analysis resulting from single element failures of the strut towing attachment interfaces, Boeing proposes to comply with Amendment 25-86 of §25.341.

- <sup>2.</sup> Applicable to systems, equipment installations, and structures that are new and significantly modified, or significantly affected by other changes. Where two amendment levels are shown for the same paragraph, the amendment level without the superscript (2) applies to structures, systems and portions of the airplane, which are not new or significantly modified.
- <sup>3.</sup> Pilot/Co-Pilot Seats: Pilot/co-pilot seats will comply with Amendment 25-64 except paragraph (c)(5), (c)(6).

Passenger Seats: Passenger seats will comply with Amendment 25-64 except for Front Row Head Impact Criteria (HIC) per paragraph (c)(5). Stretchers for transporting non-ambulatory occupants are not required to comply with \$25.562.

Flight Deck Observer Seats: Flight Deck Observer seats will comply with Amendment 25-64 except paragraph (c)(6).

Flight Attendant seats: Flight Attendant seats will comply with Amendment 25-64.

- <sup>4.</sup> Boeing intends to comply with the amendment level indicated for this rule, however, Boeing requests an exception to the latest policy and prefers to revert to the earlier policy.
- <sup>5.</sup> The equivalent regulation to \$25.783(g) at Amendment 25-88 is \$25.783(f) at Amendment 25-23. The equivalent regulation to \$25.783(g) at Amendment 25-23 is \$25.783(h) and (i) at Amendment 25-88. Unchanged doors will comply with \$25.783(e) and (f) at Amendment 25-23. Any new doors will comply with \$25.783(e)-(g) at Amendment 25-88.
- <sup>6.</sup> Reversion is requested for sub-paragraph (2) only. That is, Boeing will comply with paragraph (e) at Amendment 25-87, combined with (2) at Amendment 25-54.
- <sup>7.</sup> For §25.1316, Applicable to new and significantly modified structure and systems and portions of the airplane affected by these changes.

Part 34 as amended at the time of certification.

Part 36, as amended at the time of certification.

Part 121 is sometimes amended to require compliance with newly adopted standards of Part 25 on retroactive basis. If not already included in the above type-certification basis, Boeing will be requested to voluntarily accept the corresponding Part 25 standards as part of the type-certification basis for these derivative airplanes in order to facilitate operators' compliance with any such newly adopted Part 121 requirements.

**Special Conditions:** 

High Intensity Radiated Fields (HIRF), S.C. No. 25-152-SC Sudden Engine Stoppage, S.C. No. 25-149-SC

Equivalent Safety Findings (ESF's) exist with respect to the following sections of Part 25:

25.613 Material strength properties and design values.

25.810 (a) (1) (ii), and Escape slide inflation times.

809(b)(2)

25.811 (f) Door sill reflectance.

25.933 (a)(1) (ii) Continued safe flight and landing with thrust reverser

deployed

25.1103 (e) APU induction system

# DATA PERTINENT TO ALL MODELS (cont'd)

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25.1305 (a)(3) - (a)(6),
         (c)(1), (c)(3),
                                   Powerplant instruments.
         (c)(4), (c)(6),
25.1522
                                   APU installation - operating limitations
25.1549
                                   APU installation – operating limits per TSO c77a
                                   Speed warning device
25.1303 (c)(1)
25.1389 (b)(3)
                                   Position lights distribution and intensities - Intensities in any
                                   vertical plane
25.831 (a)
                                   Ventilation – operating with air conditioning packs off during
                                   takeoff.
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ESF's for the following untitled sections were granted as a result of use of 1-g Stall Speed Instead of Minimum Speed in the Stall as a Basis for Determining Compliance:

```
1.2
25.21 (b)
25.103 (a)
25.103(a)(1), (a)(3) - (a)(6)
25.103 (b), (c)
25.107 (b)(1), (b)(2), (c)(3),
       (g)
25.111 (a)
25.119 (b)
25.121 (c), (d), (d)(3)
25.125 (a)(2)
25.143 (g)
25.145 (a), (a)(1), (b)(1) -
        (b)(4), (b)(6), (c)
25.147 (a), (a)(2), (c) & (d)
25.149 (c)
25.161 (b), c(1), c(2), c(3)
        (d) and (e)(3)
25.175(a)(2), (b)(1), (b)(2)
       (b)(2)(ii), (b)(3),
       (c), (c)(4), (d), (d)(5)
25.177 (c)
25.181 (a), (b)
25.201 (a)(2), (b)(4)
25.207 (b), (c), (d), (e), (f)
25.231 (a)(2)
25.233 (a)
25.237 (a), (b)(1), (b)(2)
25.735 (f)(2), (g)
25.773(b)(1)(i)
25.1001 (c)(1), (c)(3)
25.1323 (c)(1), (c)(2)
25.1325 (e)
25.1587 (b)(2)
```

#### **Exemptions:**

Floor Warpage for Flight Deck Seats Exemption from §25.562(b)(2). Exemption No. 6935. Partial Exemption from §25.1435(b)(1), Hydraulic Proof Pressure Test, Exemption No. 6886.

Testing on Large Interior Panels Partial time limited exemption from 14 CFR 25.853(a), appendix F, paragraph (a)(1)(i), granted through November 28, 2010. (Exemption No. 9791, November 28, 2008)

**Production Basis:** Production Certificate No. 700 has been issued and The Boeing Company is authorized to issue

airworthiness certificates under the delegation option authorization provisions of 14 CFR part 21. See Note 13.

The basic required equipment as prescribed in the applicable Federal Aviation Regulations must Required Equipment:

be installed in the aircraft.

### DATA PERTINENT TO ALL MODELS (cont'd)

Service Information: Boeing Document D634T201 "Structural Repair Manual" is FAA-approved. Service Bulletins and other service information when FAA-approved shall carry a statement to that effect.

Note 1. A current Weight & Balance Report must be in each aircraft at the time of original airworthiness certification and at all times thereafter except in the case of an operator having an FAA approved loading system for weight and balance control.

- Note 2. Airplane operation must be in accordance with the FAA-Approved Airplane Flight Manual. All placards required by either FAA-Approved Airplane Flight Manual, the applicable operating rules, or the Certification Basis must be installed in the airplane.
- Note 3. The FAA-approved Airworthiness Limitations Section (Section 9) of the Boeing Document D622T001-9 lists the required inspection thresholds for certain structural items, the retirement times for safe-life parts, and the Certification Maintenance Requirements. All Boeing Model 767 airplanes must fully comply with this section. However, regarding the damage tolerance structural inspections contained in Chapter (B) of this section, all Boeing 767's, production line number 669 and on, must comply with a particular revision of this section, namely Revision June 1997, or later FAA-approved revision. FAA intends to issue an Airworthiness Directive (AD) mandating compliance with the June 1997 Revision (or later FAA-approved revisions), applicable to all 767 aircraft with production line numbers lower than 669. In addition, all Boeing Model 767-300F (freighter) airplanes must also comply with the October 1995 Revision to Section 9 (or later FAA-approved revision), regardless of production line number
- Note 4. Systems and powerplant Certification Maintenance Requirements (CMR): The CMR's are listed in either the FAA approved Section 9 of Boeing Maintenance Planning Data Document D622T001 or the applicable engine Type Certificate Data Sheet. The more restrictive requirement from these two documents shall be in force.
- Note 5. Crew procedures identified as required by engineering failure analyses in Boeing Document D230T405 must not be changed unless approved by FAA Seattle Aircraft Certification Office.
- Note 6. The following requirements apply to the design features at the required Type III overwing emergency exits:
  1. With one pair of Type III exits there must be an unobstructed cross-aisle at least 20 inches wide between main aisles in close proximity to the overwing exit pair. With two pair of Type III exits, the cross-aisle must be in close proximity to both exit pairs.
  - 2. Emergency lighting for the cross aisle must be provided in accordance with FAR 25.812.
  - 3. The seat pitch at the seat row that provides access to each overwing exit from the main-aisle must be not less than 36 inches.
  - 4. A maximum of 2 inches of seat cushion may encroach into the actual projected opening of the exit, provided that the cushion can be readily compressed to clear the opening.
- Note 7. The type design reliability and performance of this airplane has been evaluated in accordance with FAA Advisory Circular 120-42A and found suitable for extended operations when configured in accordance with Boeing Document D6T11604 "CONFIGURATION, MAINTENANCE AND PROCEDURES FOR EXTENDED RANGE (ER) OPERATION". This finding does not constitute approval to conduct extended operations.

The type-design reliability and performance of the Model 767-300BCF has been evaluated under 14 CFR § 25.1535 and found suitable for up to 180 minutes extended operations (ETOPS) when the configuration, maintenance, and procedures standard contained in Boeing Document D6T11604 "CONFIGURATION, MAINTENANCE AND PROCEDURES FOR EXTENDED RANGE (ER) OPERATION" are met. The actual maximum approved diversion time for this airplane may be less based on its most limiting system time capability. This finding does not constitute operational approval to conduct ETOPS.

- Note 8. There are service bulletins which call for modifications which do not comply with the Type Certification Basis. These service bulletins are listed in Boeing Document D624T001 "Service Bulletin 767". The records of airplanes imported into the USA should be reviewed to be sure that further modifications are accomplished to ensure compliance, if the non FAA-approved service bulletins modifications have been installed.
- Note 9. The Engine Indication and Crew Alerting System (EICAS) provides displays of engine parameters, crew messages of non-normal conditions, system status maintenance data. EICAS messages are divided into the following categories:

### **DATA PERTINENT TO ALL MODELS** (cont'd)

**Engine Fault Level** 

WARNING - Red message, immediate crew action required.

CAUTION - Amber message, immediate crew awareness and possible future crew action required.

ADVISORY - Indented amber message, crew awareness and possible future crew action required.

STATUS - White message appears on EICAS Status page, provides readiness for dispatch information which require crew awareness prior to dispatch.

EICAS Boeing Message - Category

MAINTENANCE - White message appears on ECS/MSG page of EICAS, for use of maintenance personnel only.

Note 10. Airplane line numbers 231 and subsequent were manufactured after August 20, 1988, and Airplane line numbers 322 and subsequent were manufactured after August 20, 1990 (Reference FAR 121.312(a)(1) and (2), Amendment 121-198). Airplanes 322 through 326 are exempt (Exemption No. 5176A). See Boeing Service Bulletin Index, D6-30300, for cross reference of line number to serial number to block number.

Note 11. The Pratt and Whitney PW4000 series, General Electric CF6-80C2 FADEC series, and Rolls Royce RB211-524H-36 or RB211-524H-T-36 series engine type certificate data sheets define allowable dispatch criteria with certain faults present in the engine control system. The three fault categories defined in the engine type data sheets correspond to the following Boeing EICAS messages.

_			
RB-211-524H, T	PW4000	CF6-80C2 FADEC	
C	A	C	ENG CONTROL-ADVISORY
C1	В	C1	ENG EEC C1 - STATUS
C2	C	C2	ENG EEC C2 - MAINTENANCE

- Note 12. Exemption 5993A for the 767-300F requires that the procedures found to be acceptable during the emergency evacuation demonstration be incorporated into the approved operator's procedures. Any deviation requires coordination with FAA Seattle Aircraft Certification Office.
- Note 13. The following Serial Number was produced under Type Certificate only: 27240
- Note 14. CF6-80C2 series engines incorporating Dribble Flow Fuel Nozzles PN 9331M72P33, P34 and P41 are prohibited from the use of JP-4 and Jet B (wide cut) fuel.
- Note 15. Use of JP-4 and Jet B (wide cut) fuel is prohibited when one or two Rolls-Royce RB211-524H-T-36 series engines are installed.
- Note 16 Mandatory replacement times, inspection intervals, related inspection procedures and all critical design configuration control limitation for the fuel tank system determined during the Special Federal Aviation Regulation No. 88 program and for compliance with 14 CFR 25.981 are listed in the FAA-approved Airworthiness Limitations and Certification Maintenance Requirement, Section 9, of Boeing 767 Maintenance Planning Data Document D622T001-9, Revision March 2006 or later FAA-approved revision. All Model 767-200, -300, -300F, and -400ER series airplanes, production line number 942 and on, must comply with Revision March 2006, or a later FAA-approved revision. The FAA is planning to issue an airworthiness directive mandating compliance with Revision March 2006, or a later FAA-approved revision, applicable to all Model 767-200, -300, -300F, and -400ER series airplanes with production numbers lower than 942.

.....END.....